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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,543	06/24/2005	Yoshiaki Zama	272793US0PCT	6714

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EXAMINER	
WEDDLE, ALEXANDER MARION	

ART UNIT	PAPER NUMBER
4172	

NOTIFICATION DATE	DELIVERY MODE
05/16/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/540,543	ZAMA ET AL.	
	Examiner	Art Unit	
	ALEXANDER WEDDLE	4172	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 June 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *8-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *06/24/2005, 12/27/2005, 10/11/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Application

1. Claims 8-18 are pending and are ready for examination on the merits.

Information Disclosure Statement

2. Those foreign patent documents listed in the information disclosure statements through which a strike-out line is drawn were not considered because the documents could not be found. The information disclosure statements (IDS) were submitted on 6/24/2005, 12/27/2005, and 10/11/2006. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner. Please refer to applicants' copy of the 1449 submitted herewith.

However, any documents listed in the information disclosure statements through which a strike-out line is drawn were not considered because the documents could not be found.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 8-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Urscheler et al. (US PGPUB 2005/0039871) in view of Ishikawa et al. (JP 05-179599). Urscheler teaches a method of producing a coated paper using a curtain coater with a coating speed of 800 m/min – 1500 m/min (pars. 0055 and 0123). Urscheler recognizes that various pigments are used in coating paper, and that there are many engineered pigments leading to improved properties (0009). Urscheler also teaches that the coating composition has a viscosity of at least 50 mPa.s (Abstract and par. 0033). In one embodiment, Urscheler teaches forming at least one layer of the free flowing curtain with a pigment that has a particle size of "at least about 2 microns," but does not limit the invention to the use only of particles greater than 2 microns (par. 0029 and par. 0064). Urscheler also teaches the use of surfactant in coating (par. 0071). Urscheler implicitly teaches a drying step (par. 0008). Regarding claims 9 and 16, the recited coating speed embraces the coating speed of Urscheler ('871) which teaches a coating speed of 800 m/min – 1500 m/min (pars. 0055 and 0123),

Regarding claim 12 and 17, Urscheler ('871) teaches a curtain coating method to produce coated paper by the rejected process claims.

Urscheler ('871) fails to teach the particular base paper to be coated and its characteristics. Urscheler also fails to teach using the claimed copolymer latex.

Although Urscheler teaches coating paper with pigments, Urscheler does not teach using particle clay with the specific characteristics disclosed by Applicant. Urscheler does not teach a spray coating method.

Ishikawa ('599) teaches a copolymer latex for paper coating (Claim 1). Ishikawa teaches that the polymer latex is mixed to make up 5-35% of the weight by solid content, and the copolymer latex is composed of 15-40% butadiene, 0.5% - 8% by weight of ethylenically unsaturated carboxylic acid 0.monomer (pars. 0006-0017).

Regarding claim 10, Ishikawa ('599) teaches Applicant's copolymer latex for use with the claimed process. Given the composition and the process, a person of ordinary skill in the art of paper coating at the time of invention would have been able to carry out without undue experimentation the optimization required to determine the optimum ratio of copolymer to surfactant.

Regarding claim 15, Ishikawa ('599) teaches the use of the copolymer which Ishikawa teaches can be used with a curtain coater such as that of Urscheler ('871).

Therefore, It would have been obvious to one of ordinary skill in the art to make a modification by take Urscheler ('871)'s teaching in view of Ishikawa ('599) since Ishikawa remedied the deficiencies found in Urscheler. A person of ordinary skill in the art at the time of invention would have been motivated to combine Urscheler ('871) and Ishikawa ('599), because Urscheler teaches curtain coating with a composition like that of Ishikawa (Urscheler, par. 0008), and Ishikawa teaches using his composition with a curtain coating machine such as that of Urscheler (Ishikawa, par. 0027). Such person would have found Applicant's invention obvious.

It is note that the limitation recited in claim 8, the issue is the patentable weight to be given the specific base paper used in the Applicant's claimed process. The choice of base paper to be used to practice a prior art coating process is the result of experimentation which does not rise to the level of undue experimentation, and which could be carried out by a technician in routine optimization testing. Given the existence of the prior art process, a person of ordinary skill in the art would have recognized at the time of invention the benefit of using a base paper with particular characteristics to meet industrial needs; alternatively, such person would have recognized the benefit of experimenting with and choosing from a finite number of base papers to use in the practice of the prior art invention.

Regarding claims 11 and 14, both Urscheler ('871) in view of Ishikawa ('599) suggest the use of pigments, such as kaolin and clay as pigments (see Urscheler, par. 0058-0066). A person of ordinary skill in the art at the time of invention would have been able to determine specific ratios of clay to use to practice the process without undue experimentation. Such optimizations are those of a technician optimizing a process and not those requiring an inventor's skills. As mentioned above, Urscheler implies a drying step. Regarding claim 13 and 18, because the person of ordinary skill in the art at the time of invention would have been motivated to combine the references to produce the coated paper by the processes of claims 8 and 14, the paper coated by the processes is also an obvious outcome of practicing those processes.

It is also noted that this application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes

that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Conclusion

3. No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEXANDER WEDDLE whose telephone number is (571) 270-5346. The examiner can normally be reached on Monday-Thursday, 7:30 AM - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vickie Kim can be reached on (571) 272-0579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. W./
Examiner, Art Unit 4172
/Vickie Kim/
Supervisory Patent Examiner, Art Unit 4172